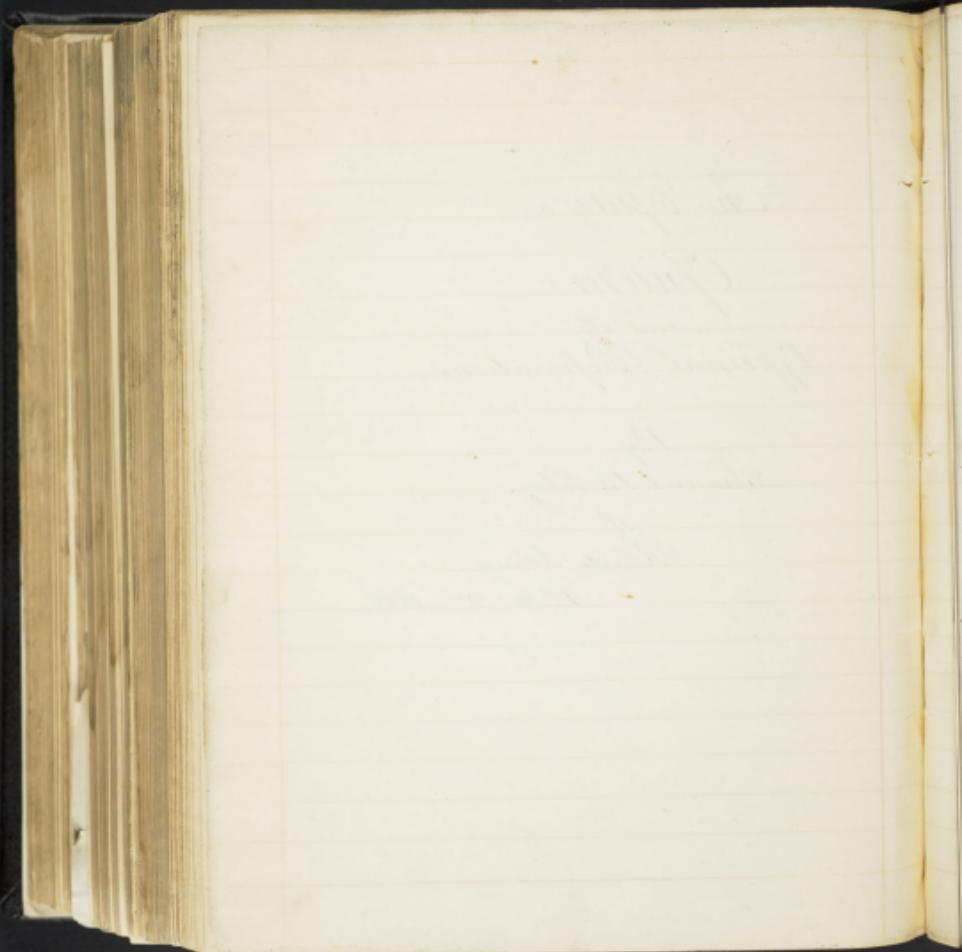


An Essay on
Opium
and its
Officinal Preparations.

By
Samuel D. Sherry.

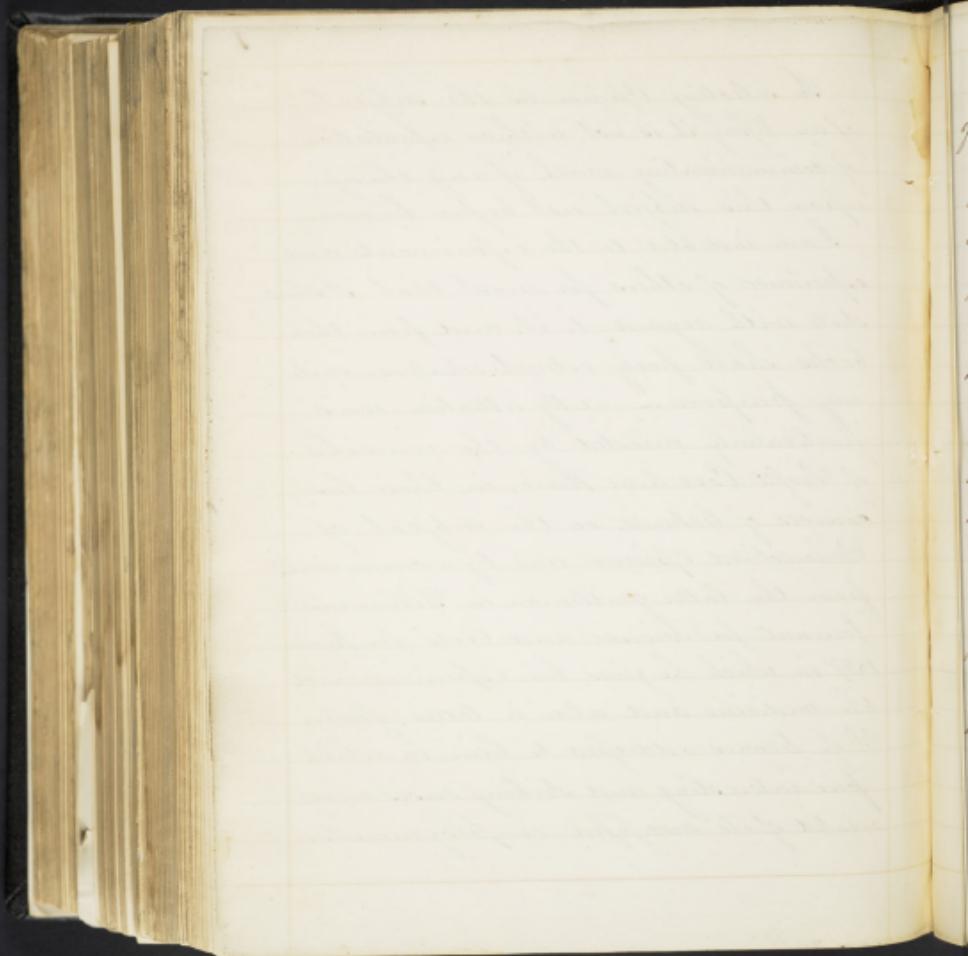
of
Rhode Island.

1st No. 2nd 1828.



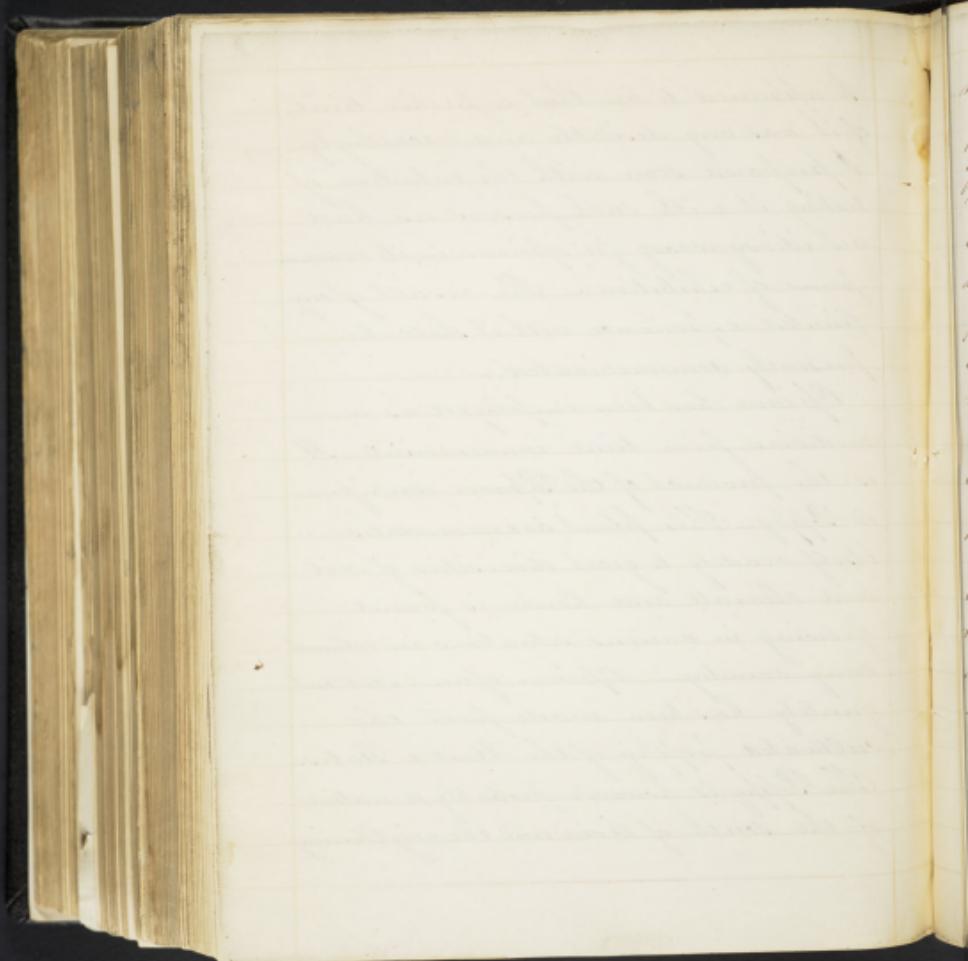
In selecting Opium as the subject of an Essay it is not with an expectation of communicating much, if any thing, upon this subject not before known.

I am indebted to the experiments and experience of others for most that I shall state with regard to it, and from their books shall freely extract whatever suits my purpose. — My attention was particularly arrested by the remarks of Prof^r Coxe and Horne, in their last courses of lectures, on the subject of Unoccluded Opium and by a communication from the latter gentleman in *Almanac Journal for Science and Arts* for June 1827 in which he gives his experience with the medicine and also a letter from Prof. Dewees addressed to him, in which four interesting and striking cases were related of its successful employment.

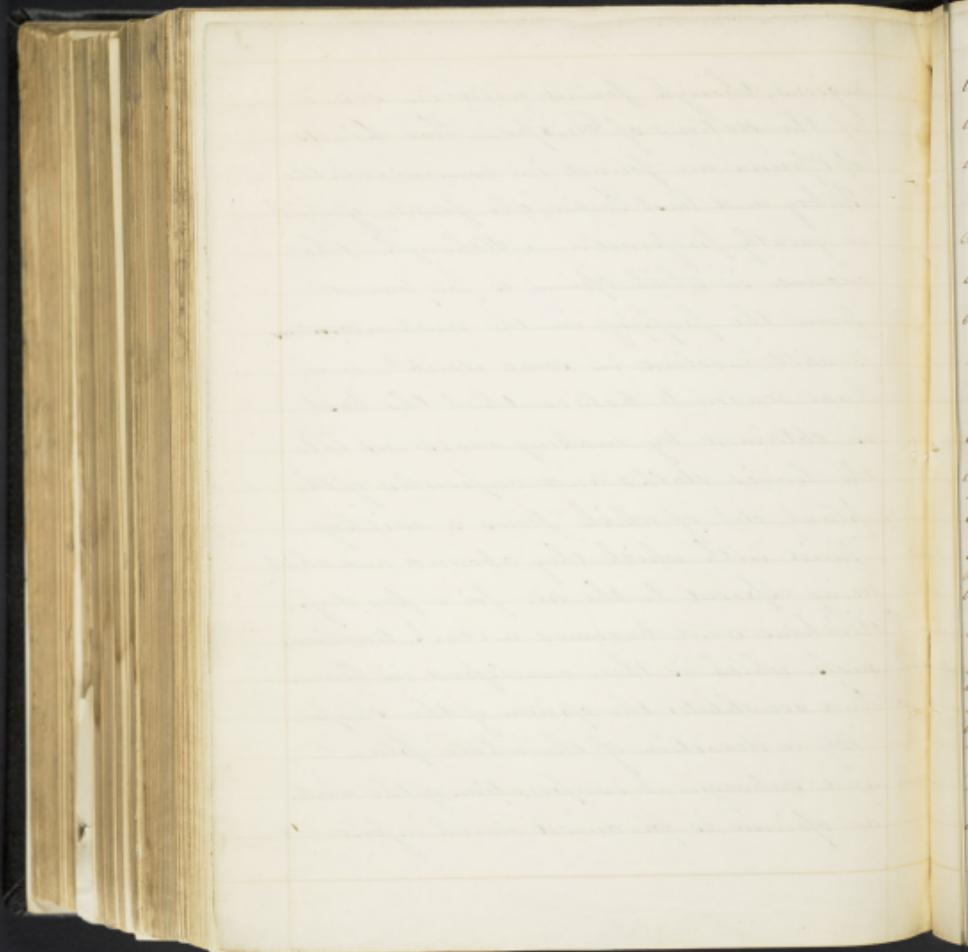


It appeared to me that a further trial
of it was very desirable and accordingly
I prepared some with the intention of
testing it with such persons as had
an idiosyncrasy for opium in its common
forms of exhibition. The result of my
limited experience with it shall be
presently communicated.

Opium has been employed as a
medicine from time immemorial. It
is the product of the *Papaver somniferum*
or Poppy. This plant accommodates
itself readily to great diversities of soil
and climate and hence is found
growing in various situations in almost
every country. Opium of an excellent
quality has been made from the
cultivated poppy of the United States.
The Poppy is however probably a native
of the south of Asia and the neighbouring



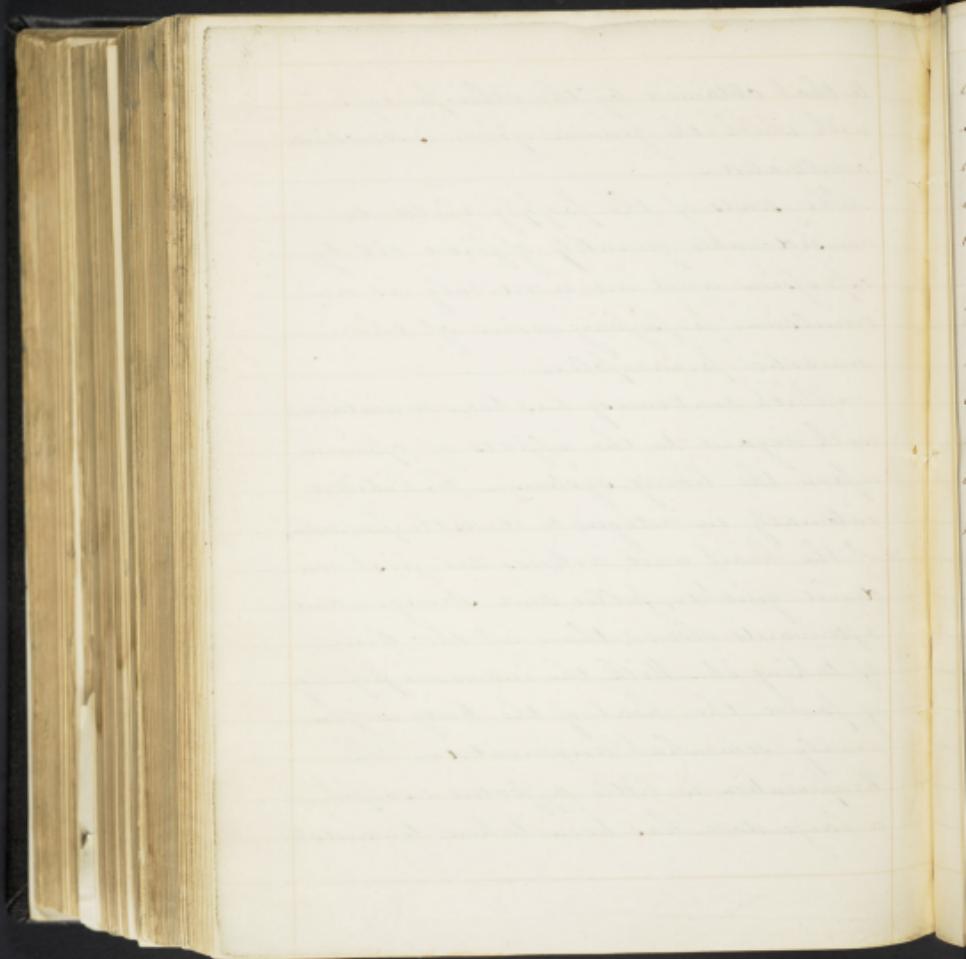
regions, though found wild in some of the sections of Europe. Two kinds of Opium are found in commerce, the Turkey and East India, the former of which is greatly preferred. Although the substance in which Opium is prepared from the poppy in the east is not known, it is still involved in some doubt, we have reason to believe that the best is obtained by making incisions into the leaves, stalks and capsules of the plant, out of which flows a milky fluid with which they abound, and which, being exposed to the air for a few days, thickens and becomes a dark, tenacious mass, which is then enveloped in leaves and constitutes the opium of the shops. By a decoction of the whole plant and subsequent evaporation of the water, an opium is prepared much inferior



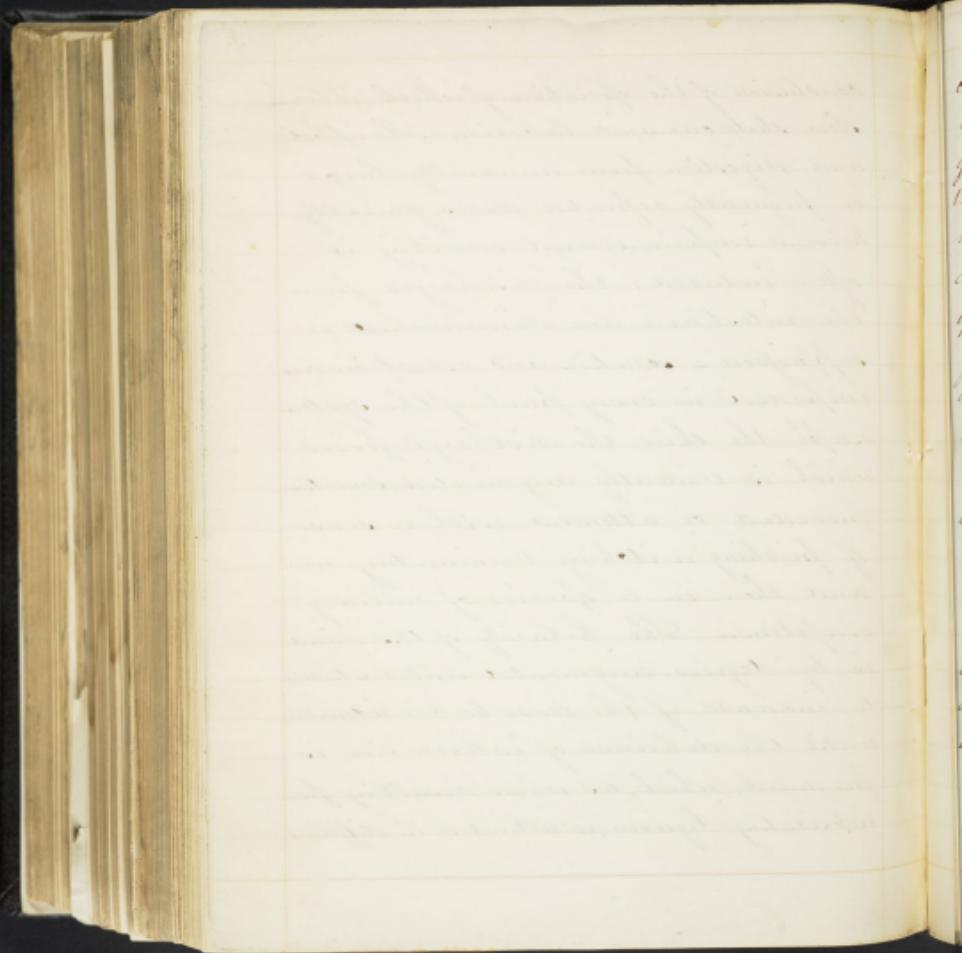
to that obtained by the other process,
with which the genuine opium is sometimes
adulterated.

The seeds of the poppy yield a
considerable quantity of fixed oil by
expression and are used only as an
emulsion, possessing none of the
narcotic properties.

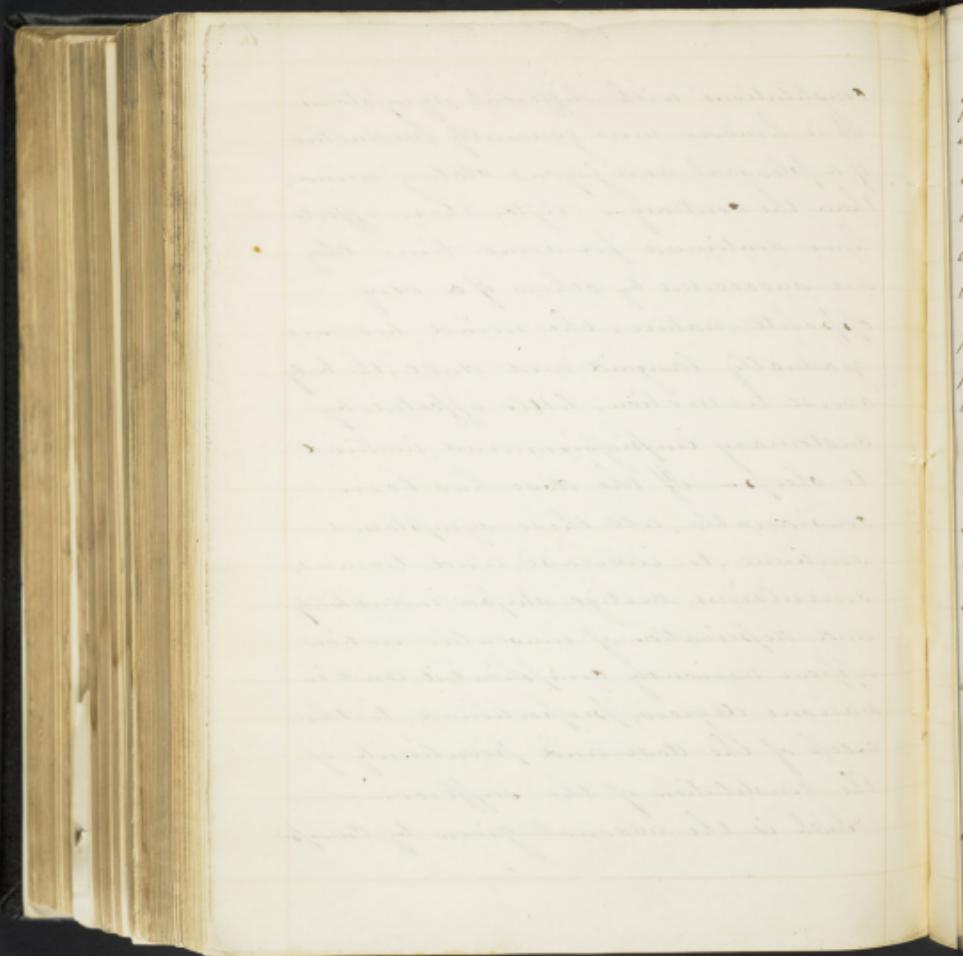
Much controversy has been maintained
with regard to the effects of opium
upon the living system. Prohibited
internally in adequate doses the pulsation
of the heart and arteries are first re-
duced quicker, fuller and stronger, and
afterwards slower, than at the time
of taking it. With the increased frequency
of pulse, the heat of the body is gen-
erally somewhat augmented. The
respiration is little affected except
a large dose has been taken, towards the



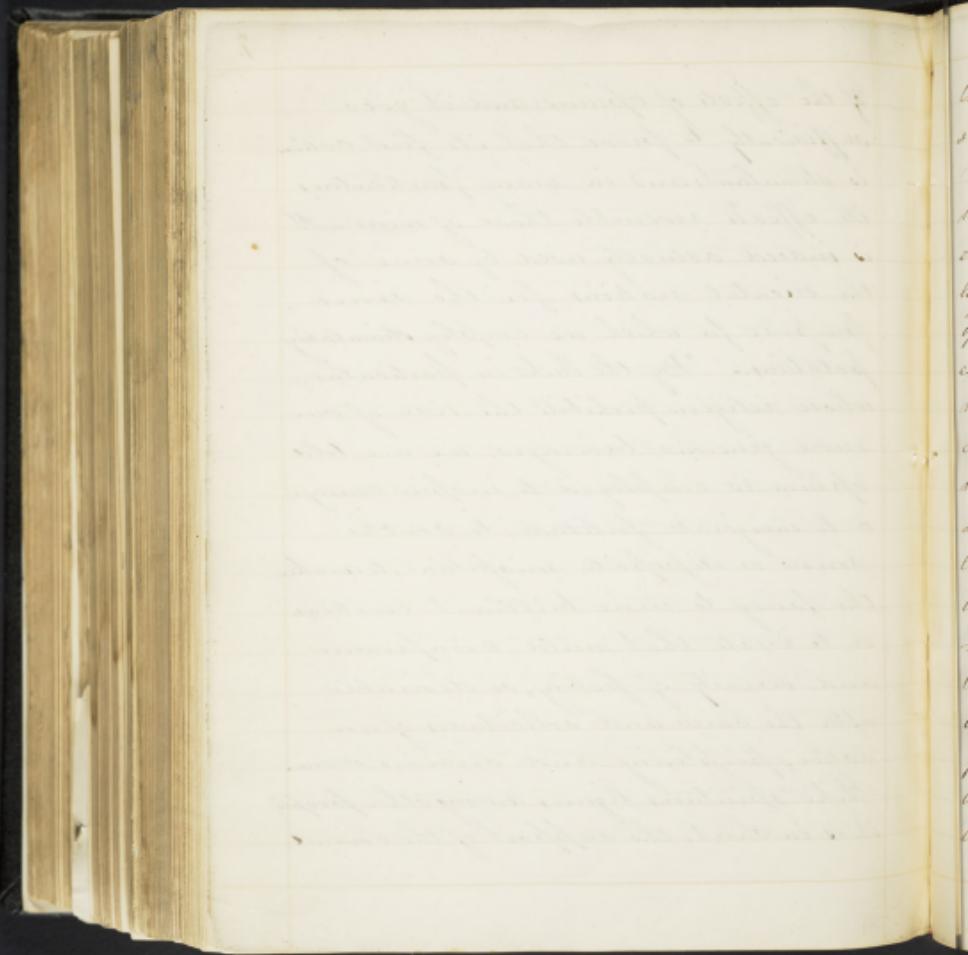
conclusion of the operation of which, it becomes slow, tedious and laborious. The appetite and digestion, from unusually large or frequently repeated doses, generally become impaired, and vomiting is often induced; the discharges from the intestines are diminished or suspended - stooling and excretion are impeded in every part of the system except the skin, the discharge from which is evidently augmented, sometimes preceded or attended with a sense of pricking or itching, terminating now and then in a species of mild irritation. The hilarity of the mind is by degrees augmented and continues to increase if the dose be considerable, until the delirium of intoxication is produced, which, as when resulting from intoxicating liquors, is attended in different



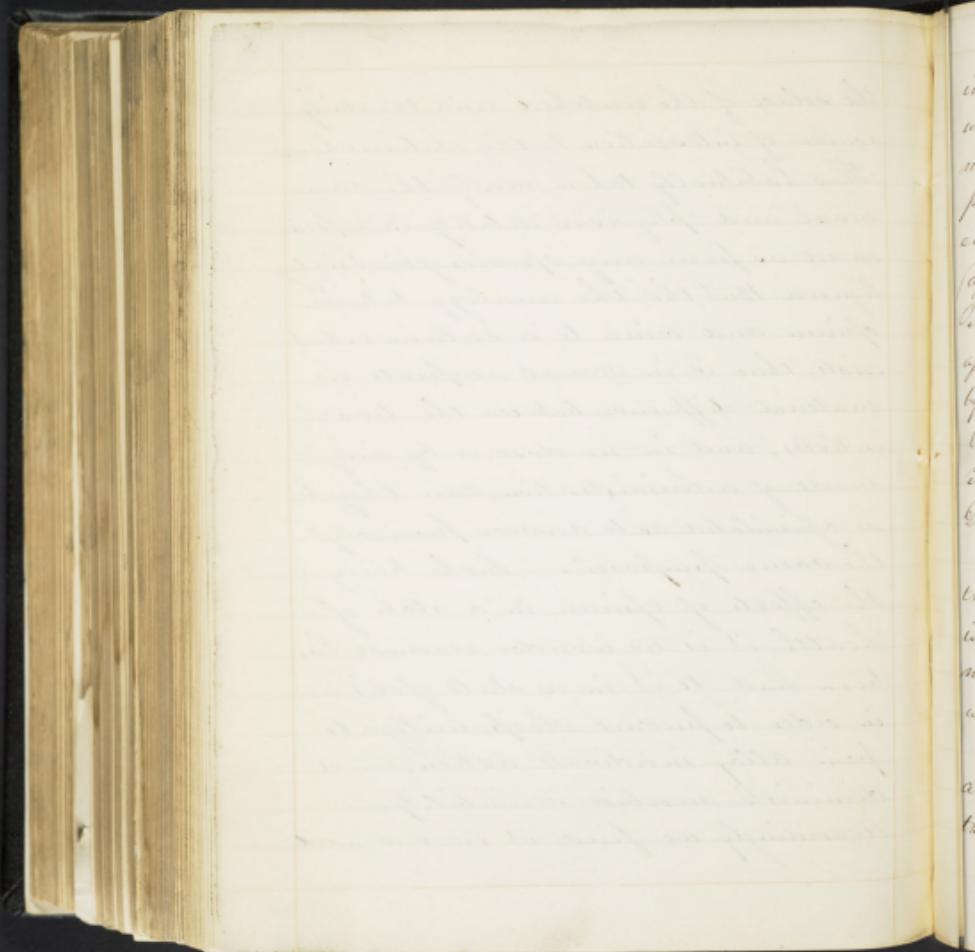
constitutions with different symptoms. It is however more generally productive of a pleasant and joyous state of mind, than the contrary. After these effects have continued for some time they are succeeded by others of a very opposite nature: the mind becomes gradually languid and dull, the body averse to motion, little affected by customary impressions, and inclined to sleep. If the dose has been considerable, all these symptoms continue to increase, and tremors, convulsions, vertigo, stupor, insensibility and deprivation of muscular action appear variously complicated, and in various degrees, proportioned to the excess of the dose and peculiarity of the constitution of the sufferer.— Such is the account given by Bawler



of the effects of opium; and it goes
sufficiently to prove that its first action
is stimulant; and in many particulars
its effects resemble those of wine. It
is indeed actually used by some of
the oriental nations for the same
purpose for which we employ stimulating
potations. By the Turks in particular,
whose religion prohibits the use of our
more generous liquors, we are told
opium is employed to inspire courage
or to invigorate fortitude, to soothe
sorrow or dissipate misfortune, to awaken
the fancy to more brilliant exertions,
or to create that mild & composed
and serenity of feeling, so desirable
after the cares and solicitudes of an
active, perplexing and arduous scene.
Like spirituous liquors among other people,
it is in short, the support of the concert.



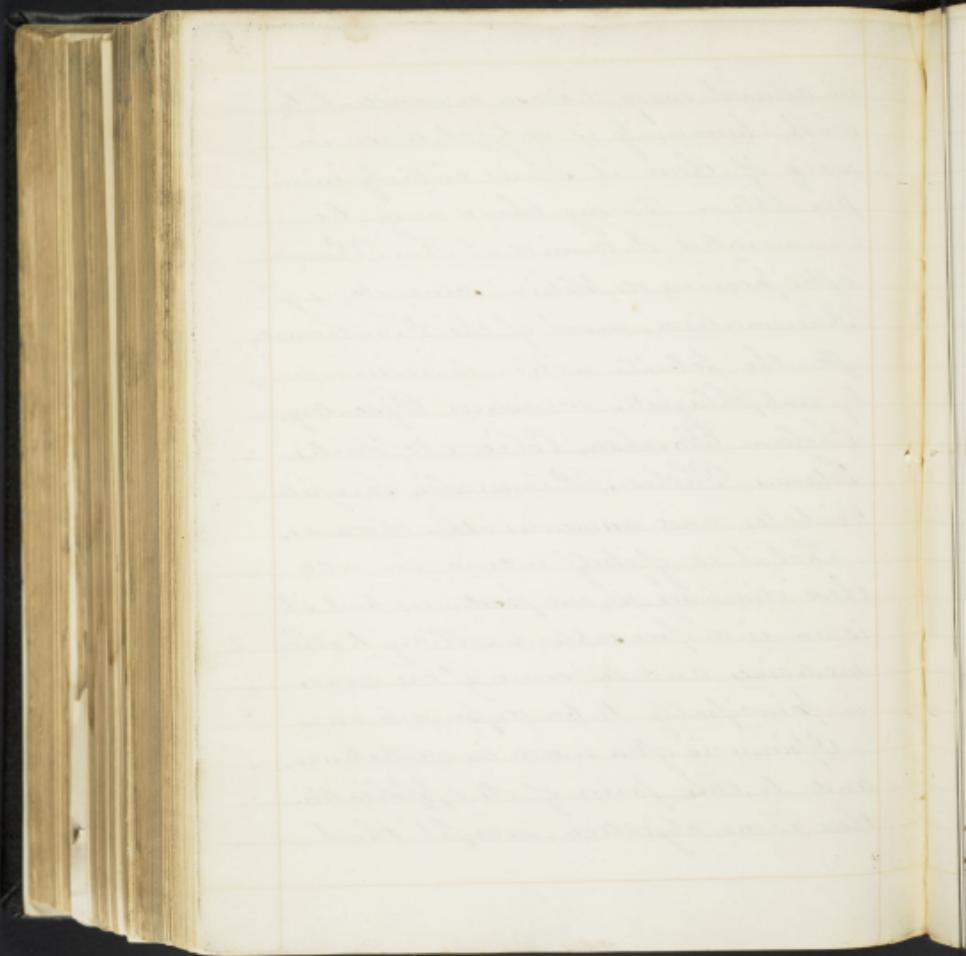
the solace of the wretched, and the daily
source of intoxication to the debauchee.
Thus habitually taken nearly the same
moral and physical debility is produced
as from any species of intoxicating
liquors. But the analogy between
opium and wine to a certain extent
exists, that is in several respects a
material difference between the two
articles, and in no dose, or by any
mode of administration, can they be
so assimilated as to answer precisely
the same purposes. - Such being
the effects of opium in a state of
health, it is no wonder because has
been had to it in a state of disease
in order to procure sleep, mitigate
pain, allay invincible action, and
diminish morbid sensibility -
Accordingly we find it recommended



in almost every disease or accident to which humanity is subject; and in many of them it seems entirely in-
peasable -- Among these may be
enumerated Intermittent Fever, Pneumonia
(after previous debility), some stages of
Rheumatism, most of the Exanthemata,
after the febrile action is removed
by antiphlogistic measures, Dysentery,
Cholera, Chiancha, Colic, &c &c, Shits,
Tetanus, Phthisis, Pulmonary, Scrofula,
Diabetes and numerous other diseases.

That it is of itself a cur for all
these diseases, no one pretends, but it
is an indispensable auxiliary to other
medicines and in some of the cases
is principally to be depended on -

Opium is often used in substance,
and to this form of its application
there is no objection, except that

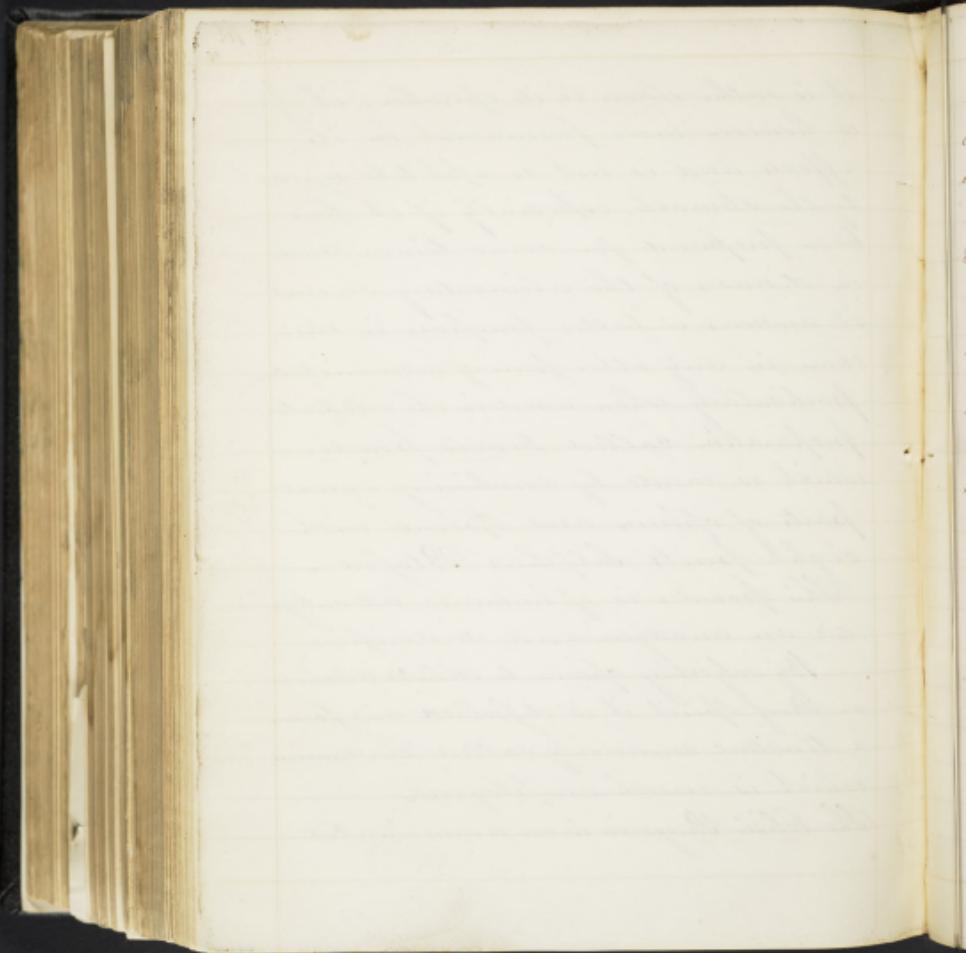


It is rather slower in its operation, it is however more permanent in its effects and is not so apt to be rejected by the stomach, especially if it has been prepared for some time and in diseases of the alimentary canal it answers a better purpose in this than in any other form of administration particularly when used in the celebrated preparation called Duncis Powder which is made by combining equal parts of opium and Sassafras with eight parts Sulphur Potash.

This powder is of immense advantage as an analgesic and astringent.

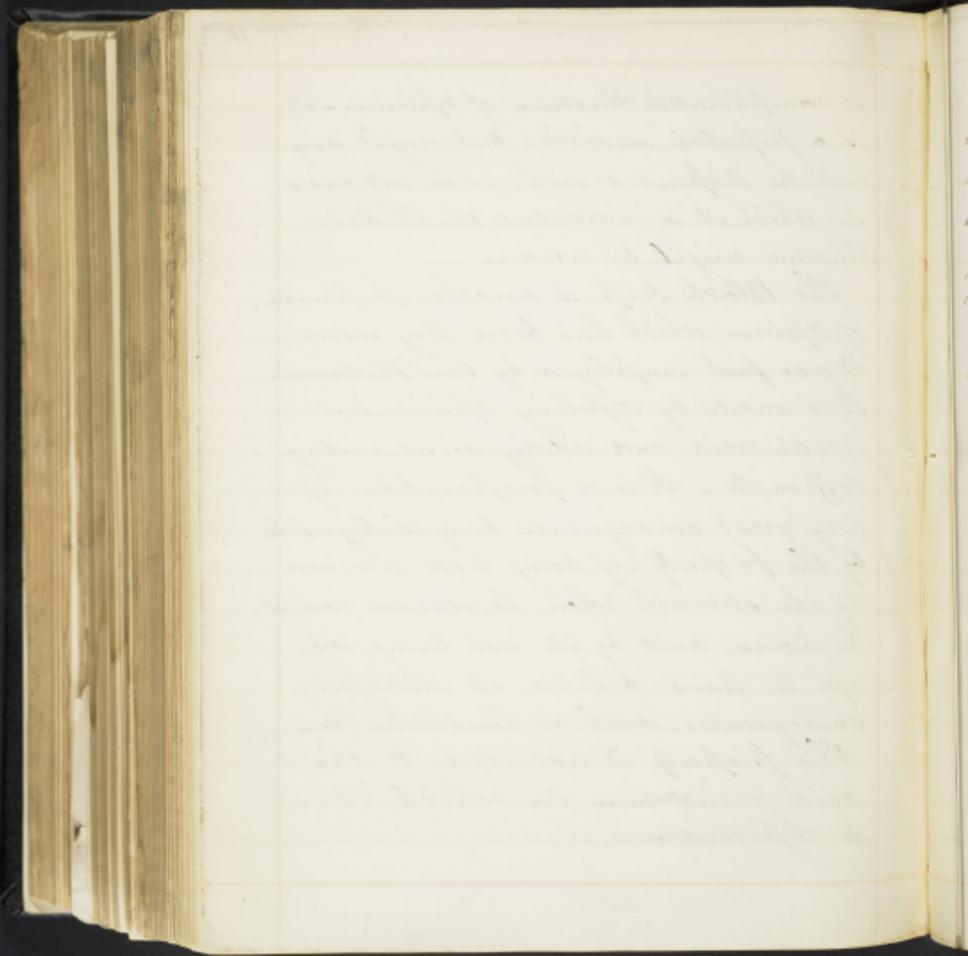
By subjecting opium to diluted alcohol or Proof Spirit it is dissolved and forms a tincture commonly called Linctus which is much employed.

The Elixir Bucolic is an ammoniated



a camphorated tincture of opium. - it is a popular medicine but might very well be dispensed with, as in all cases in which it is indicated the Rheubarb Tincture might be used.

The Black Grop is another preparation of Opium which has been long used. It was first employed by Van Helmont. It is made by dissolving Opium in Acetic acid and adding some sugar, Saffron &c. It is a preparation of very great consequence being distinguished by the property of being well received by the stomach when Laudanum cannot be borne, and by its not being so apt to leave behind it distressing consequences, such as headaches &c. This property is ascribed to the acid menstruum in which it is dissolved.



Besides these preparations of Opium
there are several others, in some of
which alkalis are combined, which
are said to possess advantages not
found in any other mode of ad-
ministration -

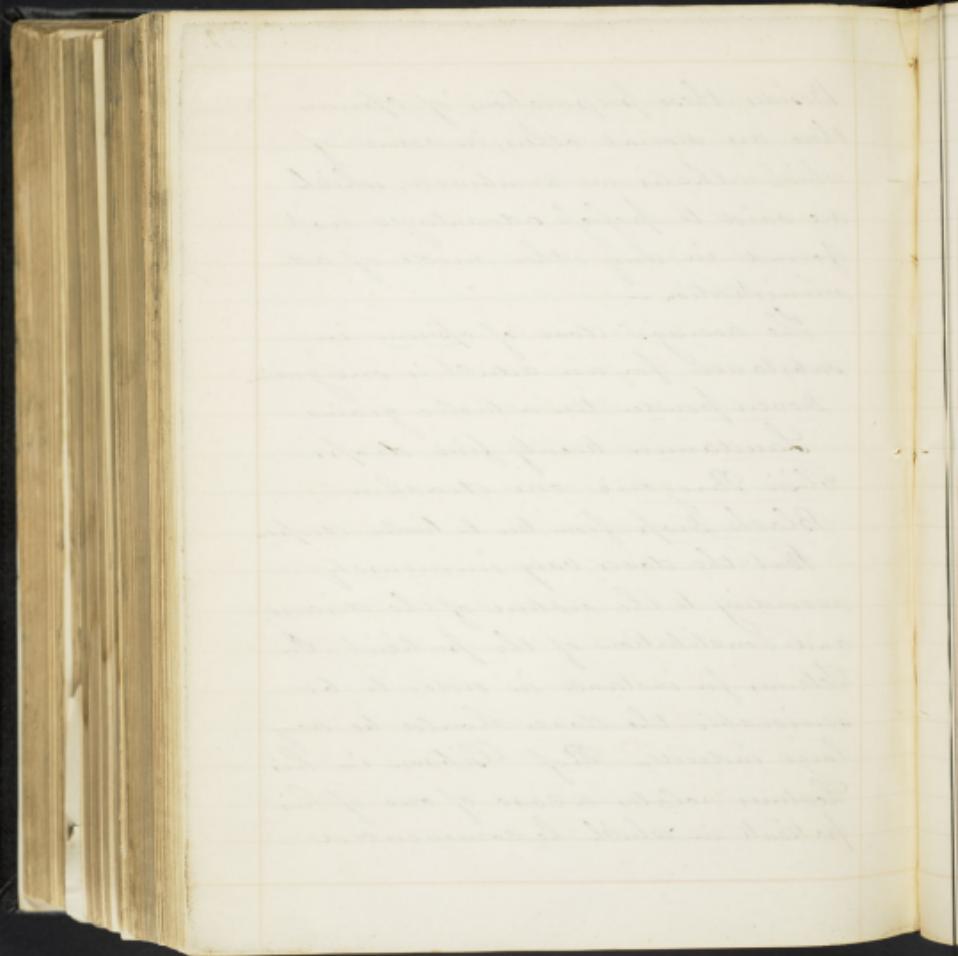
The average dose of opium in
substance for an adult is one grain
powder ten or twelve grains -

Laudanum twenty five drops -

Ghee Paragonie one drachm -

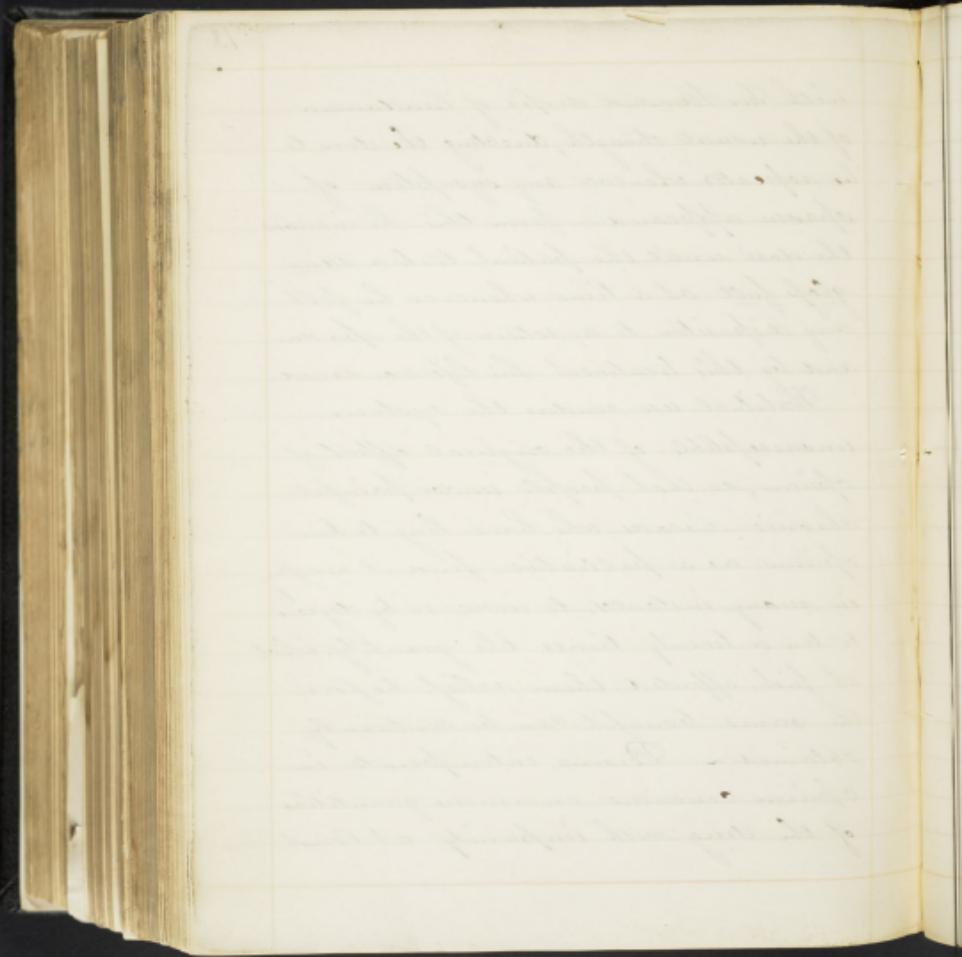
Black Drap from ten to twelve drops -

But the doses vary immensely
according to the nature of the disease
and Constitution of the patient - In
Bellman for instance in order to be
serviceable the doses should be very
large indeed. Prof. Gibson in his
Lectures relates a case of one of his
patients in which he commenced



with two hundred drops of Laudanum
of the usual strength, directing the dose to
be repeated whenever any symptom of
spasmodic affection appeared from this he increased
the dose until the patient took a ~~single~~
~~glove full~~ at a time whenever he felt
any disposition to a return of the spasmodic
attack by this treatment his life was saved.

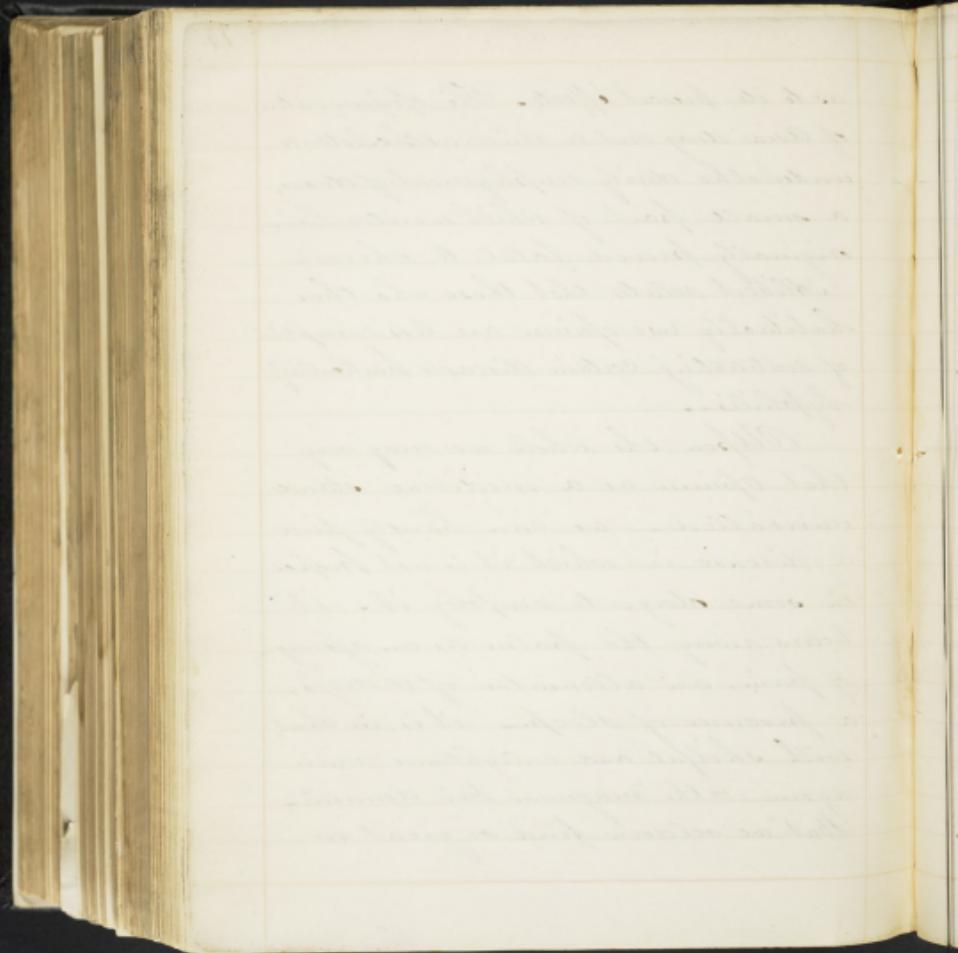
Habitual use renders the system
unconscious of the original effect of
opium, so that people under painful
chronic diseases who have long taken
opium as a palliative, find it necessary
in many instances, to increase by degrees
to ten or twenty times the quantity, which
at first afforded them relief, before
the same benefit can be certainly
obtained. Persons intemperate in
opium consume enormous quantities
of the drug with impunity at least



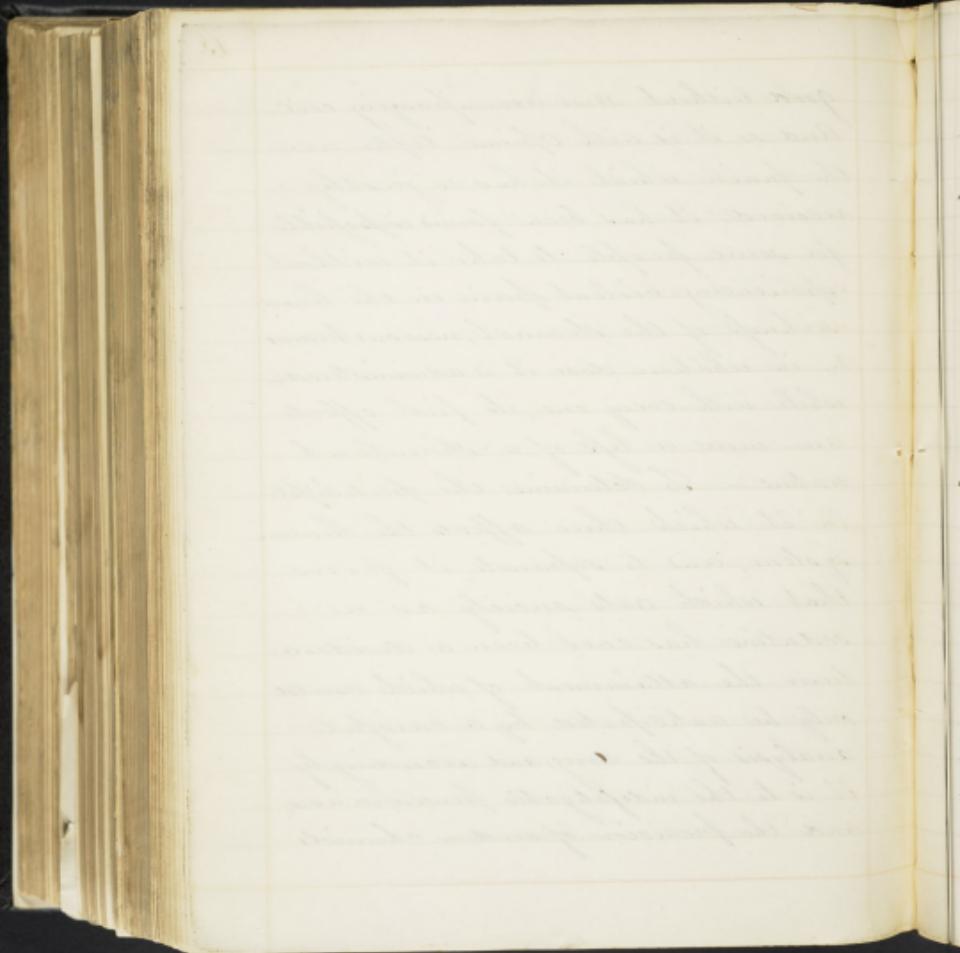
as to its present effects. The opium eaters of Asia drag out a miserable existence under the daily employment of doses, a small part of which would have originally proved fatal to them.

Sibell relates that those who thus habitually use opium are less susceptible of contracting certain diseases, particularly syphilis.

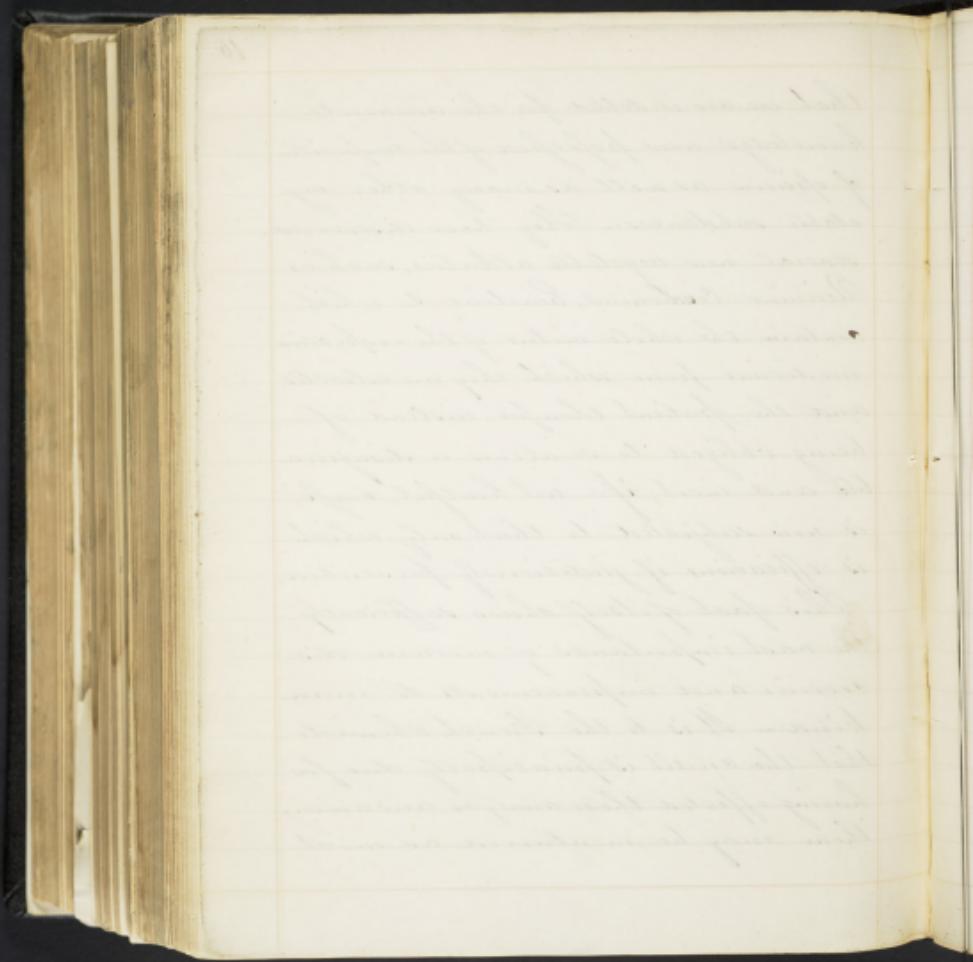
Upon the whole we may say that Opium as a medicine stands uniovulated - we can hardly find a disease in which it is not proper in some stage to employ it - it bears away the palm as an assuager of pain, an alleviator of distress, a procurer of sleep - it is, in short, with skillful and enlightened management the "magnum opus domini" - But we seldom find so great a



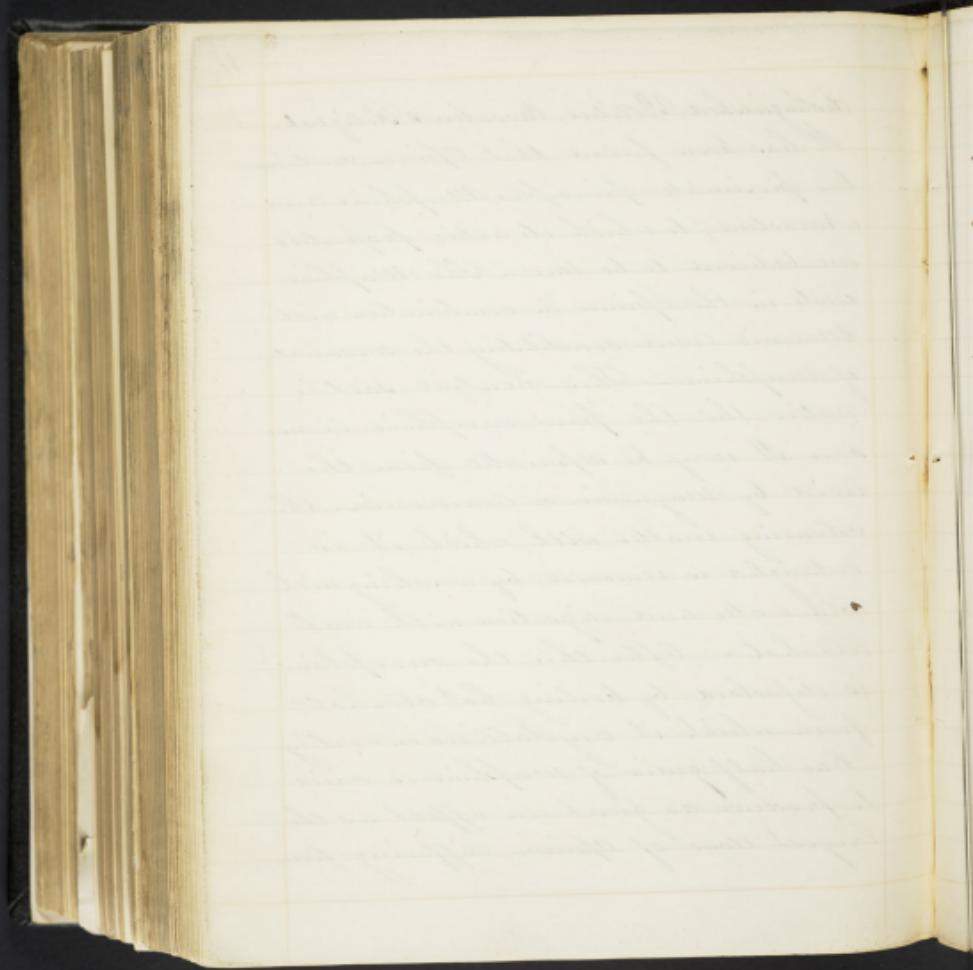
good without some accompanying evil.
And so it is with Opium. After all
the praise which it has so justly
received, it has been found impossible
for some people to take it, without
experiencing violent pain in the head,
sickness of the Stomach, nervous terrors
etc. in whatever dose it is administered,
while with every one, its first effects
are more or less of a stimulant
nature. To determine the principle
in it which thus affects the human
system, and to separate it from
that which acts merely as a
sedative has ever been a desidera-
tum the attainment of which could
only be anticipated by a careful
analysis of the drug, and accordingly
it is to the indefatigable perseverance,
and the precision of modern chemists



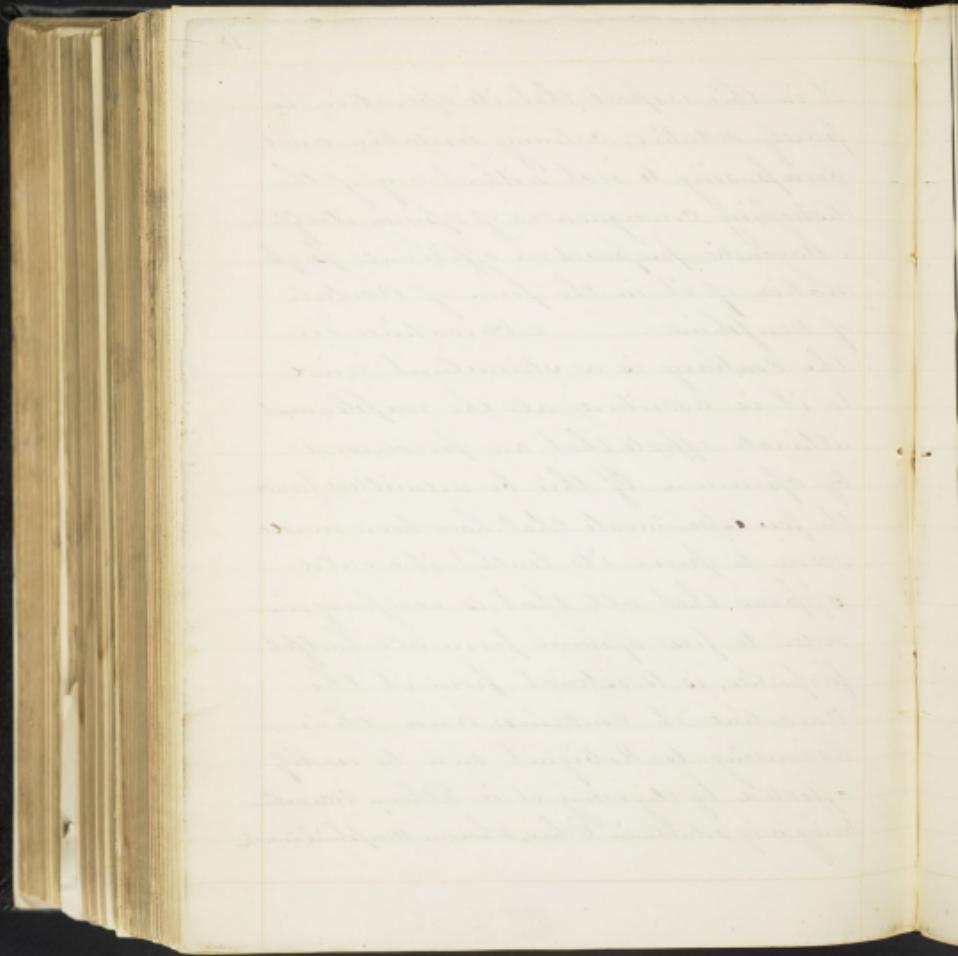
that we are indebted for the accurate knowledge now possessed of the composition of opium as well as many other vegetable substances. They have discovered several new vegetable alkalies, such as *Urticinae* *Causticum*, *Cantharides* &c which contain the whole virtue of the respective medicaments from which they are extracted, and the patient therefore instead of being obliged to swallow a disagreeable and violent, if not hurtful, mass, is now subjected to that only which is efficacious if judiciously prescribed. This fact of itself shews sufficiently the vast importance of modern discoveries and improvements to mankind. It is to the French Chemists that the credit is principally due for having effected these analyses and among them may be mentioned as most



distinguished Peltier, Croceton & Rognet.
It has been found that Opium contains
two proximate principles, Morphine and
Atropine, to which its active properties
are believed to be due - The Morphine
exists in the opium in combination with
Acetic Acid constituting the acetate
of Morphine - This neutral salt is
active tho' the free morphine is not
so - It may be separated from the
Acid by Magnesia or Ammonia - The
colouring matter with which it is
entangled is removed, by washing with
cold water and digestion with weak
alcohol - After this the morphine
is dissolved by boiling hot alcohol,
from which it crystallises on cooling.
One half grain of Morphine is said
to produce as great an effect as the
largest dose of Opium, differing from

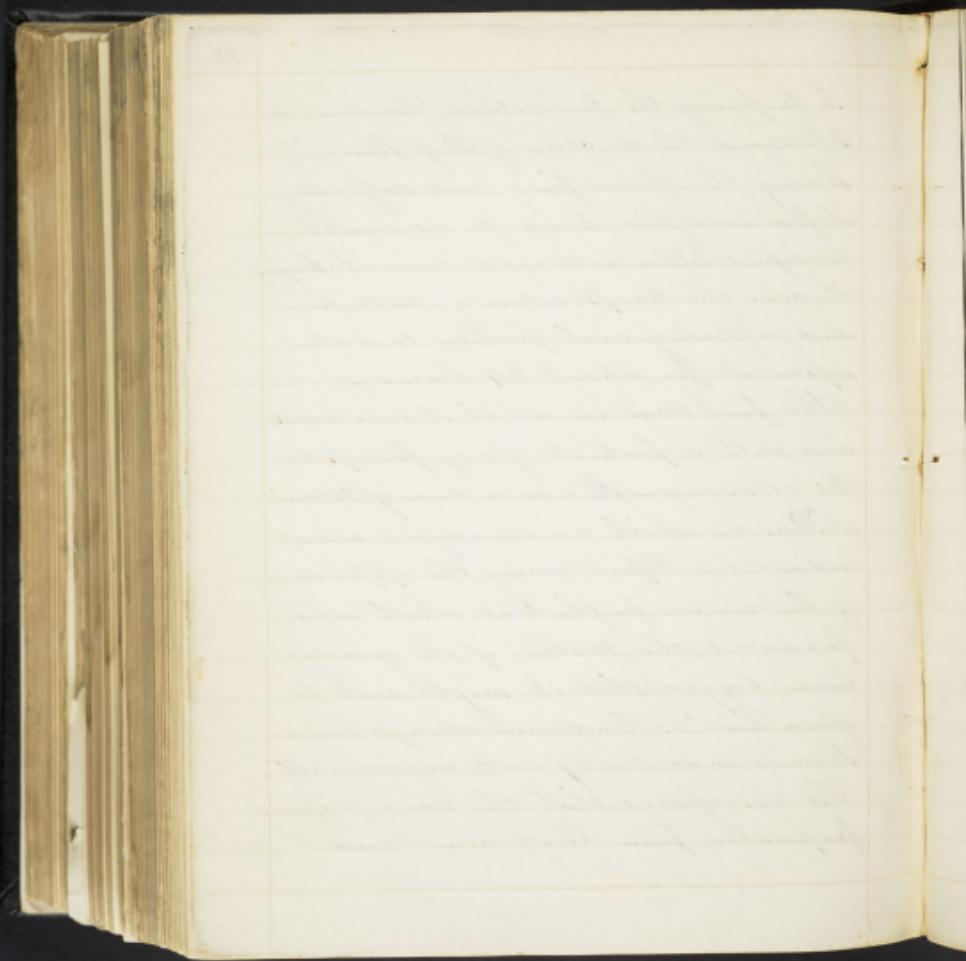


it in this respect, that its operation is
purely sedative, calming irritation and
composing to rest without any of the
distressing consequences of opium itself -
Mogenet proposed an official prepara-
tion of it in the form of Acetate
of Morphine - Narcoleine on
the contrary is a stimulant, and
to it is ascribed all the unpleasant
ultimate effects that are produced
by opium - If this be admitted (since
the few experiments that have been made
seem to prove its truth) it would
appear that all that is necessary, in
order to free opium from all hurtful
properties, is to extract from it the
Narcoleine it contains and this
according to Rotigach can be easily
effected by digesting it in Ether - Narcoleine
being very soluble in Ether, whereas Morphine is not.



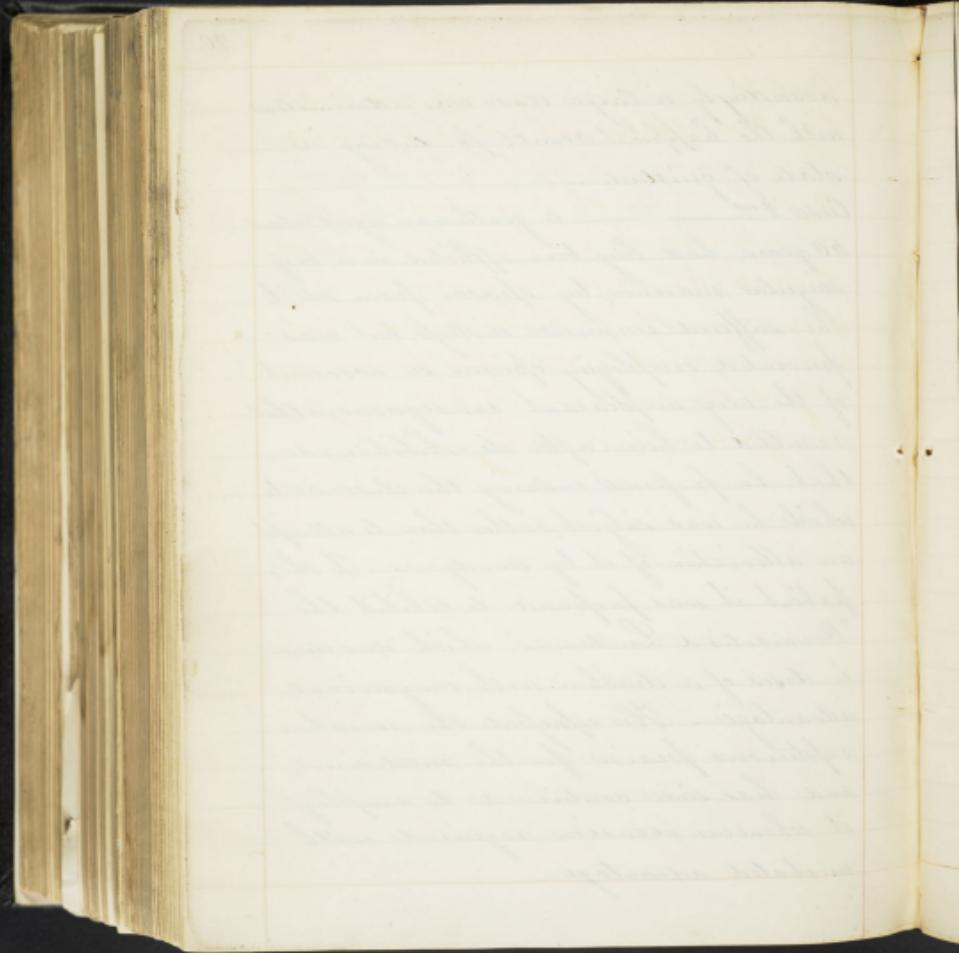
In preparing the Denarcotized Laudanum I followed the directions of Prof. Ward by having the opium first, and subjecting it four successive times to as much rectified Ether as would cover it; keeping it near the temperature of subtilization and allowing each portion to act upon it for about 24 hours -

The first case in which it was used was with a patient of my predecessor Dr. Clamann. It was a case of Malaria a Pother in which an anodyne was indicated - Upon seeing the appearance of Laudanum, in the Mixture which was produced, the Mother of the young man begged that it might not be given him "as Laudanum always made Thomas more crazy and ungovernable" She was assured that this was a different preparation from Laudanum and

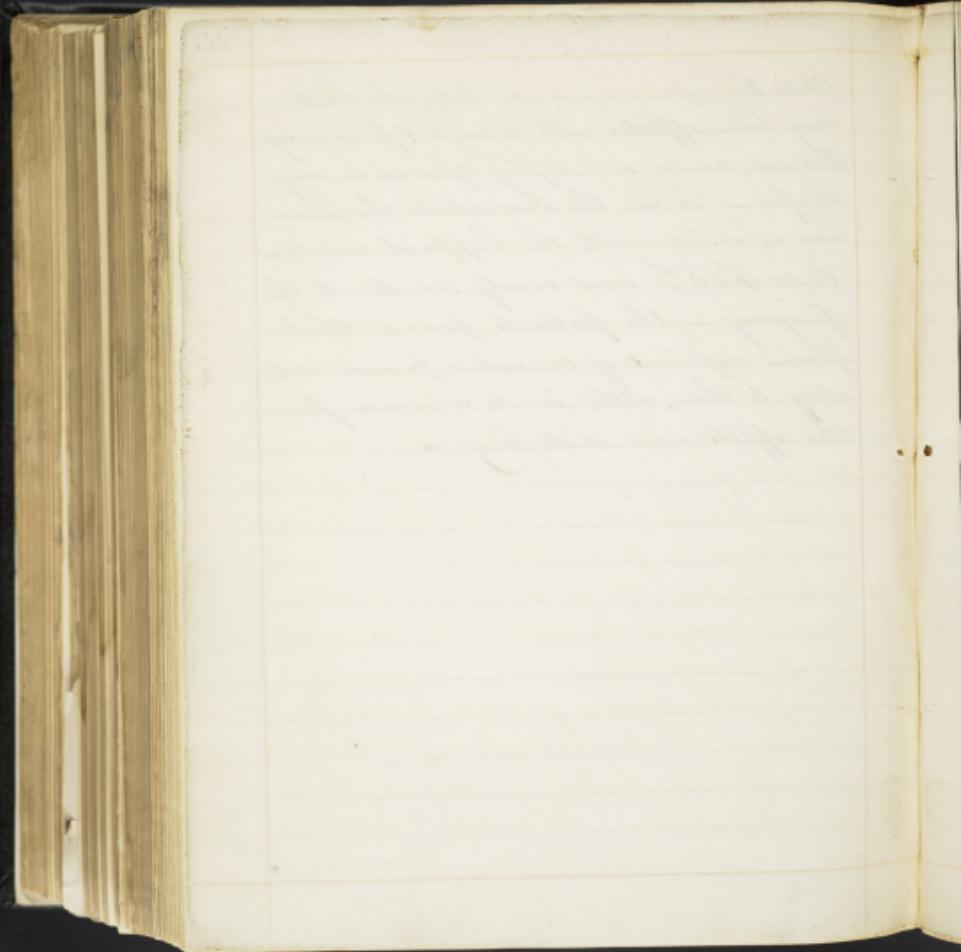


accordingly a large dose was administered with the happiest result producing a state of quietude.

Case 2nd — — a gentleman aged about 50 years, had long been affected in a very singular manner by spasm, from which he suffered immense distress, but was preoccupied employing opium on account of the very unpleasant consequences that resulted to him after its exhibition; so that he preferred enduring the disease which he was subject rather than to attempt an alleviation of it by anodynes. To this patient it was proposed to exhibit the "Densified Laudanum", which was done in doses of a drachm with unequivocal advantage. He expressed the most sanguine praise for the medicine, and has since continued to employ it whenever occasion required with unabated advantage.



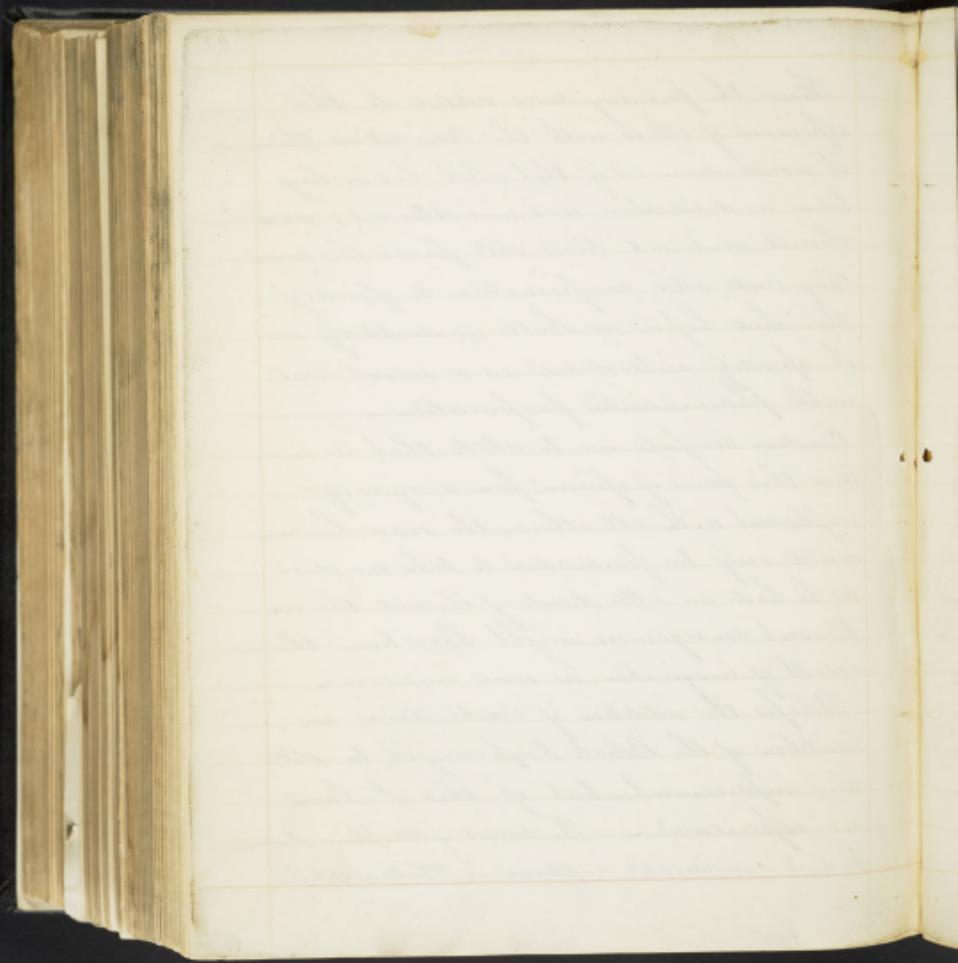
Case 3^o — — a lady, who had long been afflicted with a cough, & pulmonary disease, could not employ opium in any shape — To her the Decarboxylated Mixture was exhibited with the happiest result — Cases 4^o & 5^o were nearly similar to the foregoing — the patients found that opium deprived of Maceotine proved salutary to them, altho' in its common form the effects were distressing —



From the preceding cases, added to the
experience of others, with the Recreational Opium,
it would seem as if that which has so long
been a desideratum was now obtained; and
should continued trials still prove the same
thing, and add confirmation to fondly
cherished hope, we shall undoubtedly see
it speedily introduced as a most use-
ful pharmaceutical preparation.

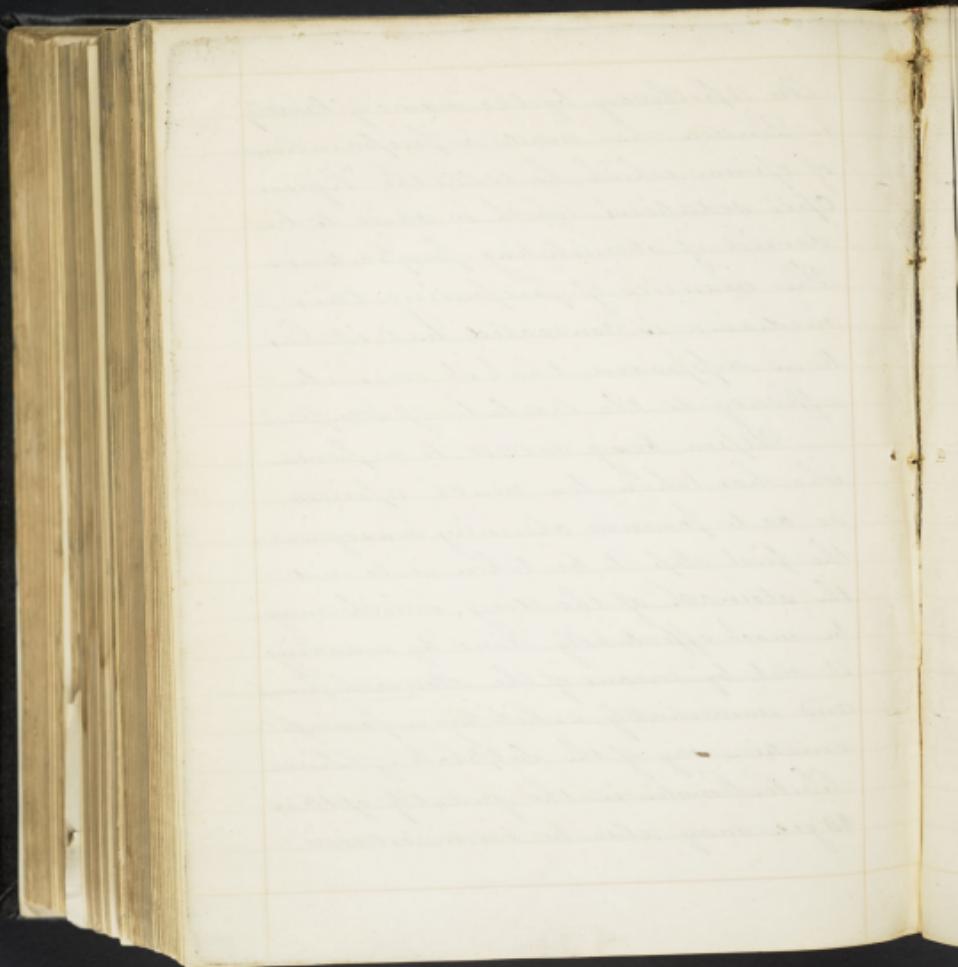
Custom compels me to state that in one
case this form of opium proved equally
unpleasant with all others. The man, however,
could only be persuaded to take one dose
as he had an abhorrence of it, and the un-
pleasant consequences might have been the
result of imagination, in some measure.

Perhaps the addition of Acetate Acia in
imitation of the Black Drap might be still
an improvement, but of this I have
no experience. The Acetate of Morphine, I
find, is considerably employed in Philadelphia.



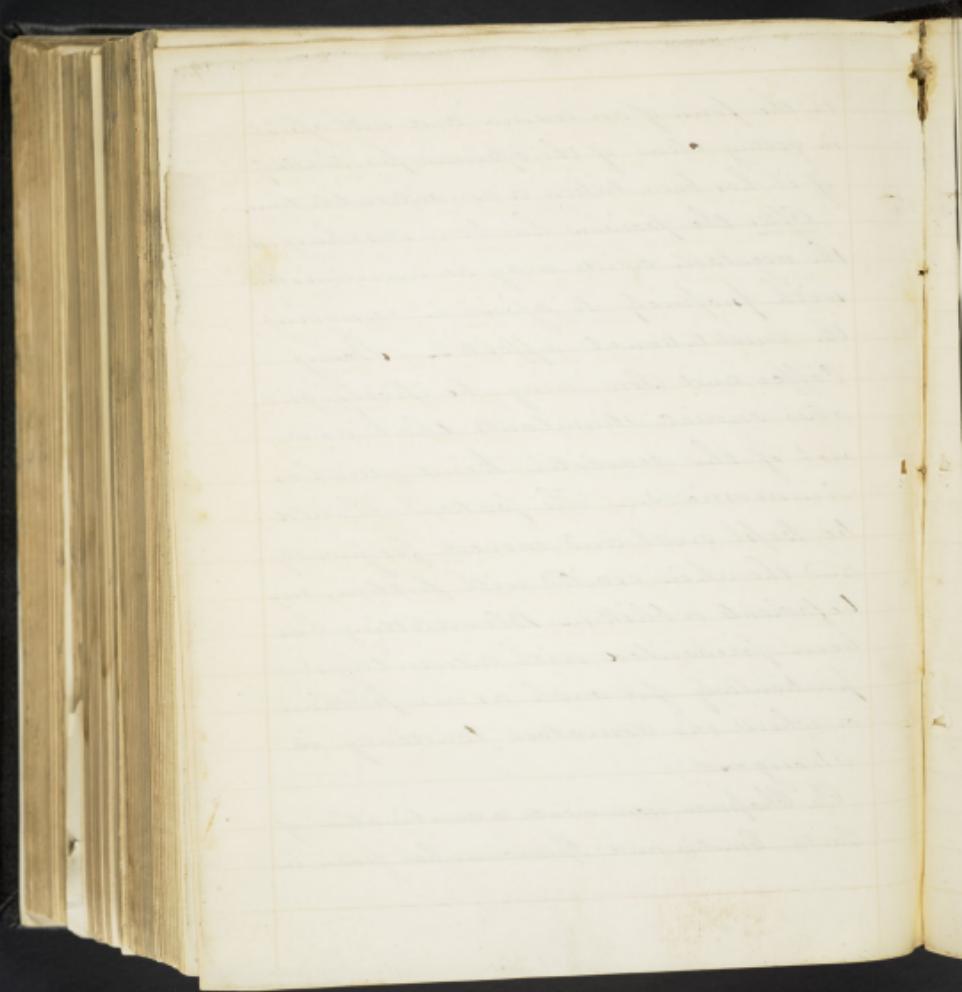
An Apothecary by the name of Battell in London has made a preparation of opium which he calls the "Liquor Opii sedativus", which is said to be devoid of stimulating properties. The manner of preparing this medicine is concealed but it has been supposed that it owes its efficacy to the acetate of Morphine.

Upon being called to a person who has taken too much opium, so as to produce alarming consequences, the first step to be taken is to rid the stomach of the drug, which may be most effectually done by washing it out by means of the stomach pump and immediately exhibiting a powerful emetic - say of the sulphate of Liver Tartar Emetic in the quantity of 15 or 20 grs. may also be administered.

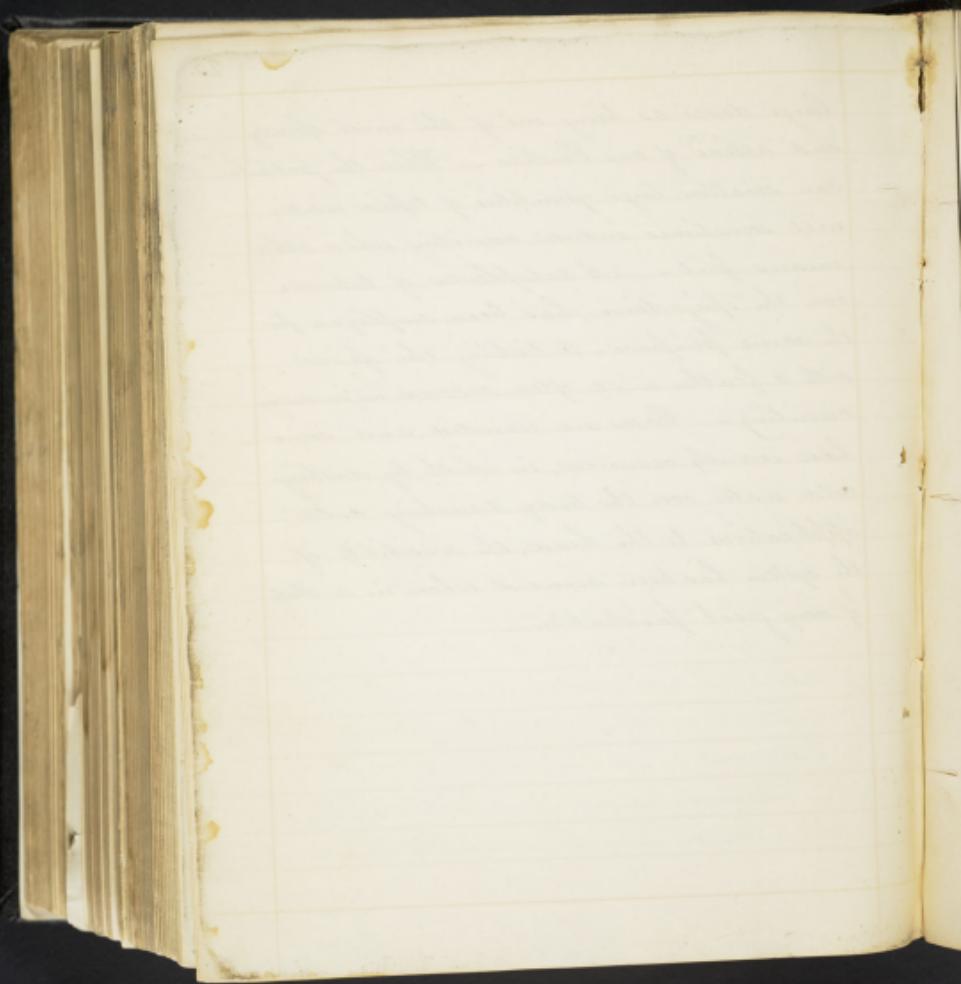


in the form of an emetic and cold sweat
in getting clear of the opium, particularly
if it has been taken a considerable time.
After the poison has been discharged
the vegetable acids may be administered
with profusely to assist in removing
the constitutional effects. Strong
coffee and tea may be freely given
also cordial stimulants that are
not of the narcotic kind, such as
Ammonia, &c. The patient should
be kept cool and move frequently
and the skin excited with friction, re-
bafacients or blisters. Bloodletting has
been prescribed with advantage
particularly for such as are plethoric
or where the comatose tendency is
strong.

Dr. Chapman recommends a combination of
Barts, Emetic and Specacuanha given in



large doses as being one of the most speedy and active of our Remedies. When the patient can swallow, large quantities of tepid water will sometimes induce vomiting when other means fail. A calaphazine of tobacco over the epigastrium has been employed for the same purpose. & flogging the fleshes with a feather will often succeed in inducing vomiting. Cases are recorded, and some have recently occurred, in which by dashing cold water over the body & making cold applications to the head, the sensibility of the system has been aroused when in a state of very great prostration.



No 28

C.

Minot's Hotel Market

Oil - 3 of Seven
Spoon

The cases mentioned under the head of
Juniperum Virginianum, serve the
affinity of the article - but it may be
questioned if the same benefit would
not equally have been demonstrated by
that of the old Tuberous Thistle. - If so, then
we need two articles, apparently so
differently allied in their effects - As to the
Cedar Apple - its antiseptic properties
may be regarded as oil, not fat.

Dated March 5th 1828

